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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/762,762

01/22/2004

Russell Hill

KEGB:004US

3116

7590

11/14/2006

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EXAMINER

MARCANTONI, PAUL D

ART UNIT

PAPER NUMBER

1755

DATE MAILED: 11/14/2006

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

10/762,762

Applicant(s)

HILL ET AL.

Examiner

Paul Marcantoni

Art Unit

1755

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 1 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 1/22/04 (filing date).
- 2a) ☐ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-106 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☐ Claim(s) \_\_\_\_\_ is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☒ Claim(s) 1-106 are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)                       | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____  |

Restriction to one of the following inventions is required under 35 U.S.C. 121:

- I. Claims 1-43, drawn to a method of air entraining a cement mixture (which is shaped ultimately by pouring or putting into a mold or form as set forth on p.22, line 15 of applicants' specification), classified in class 264, subclass 333.
- II. Claims 44-47, drawn to an air entrained cement mixture, classified in class 106, subclass 823.
- III. Claims 48-82, drawn to a composition comprising fly ash, air entrainer, and sacrificial agent, classified in class 106, subclass Dig.1.
- IV. Claims 83 and 95-103, drawn to a method of treating fly ash using aromatic carboxylic acid or its salts, classified in class 427, subclass 420+.
- V. Claim 84, drawn to a mixture of air entrainer+ sacrificial agent, classified in class 528, subclass 672+.
- VI. Claim 85, drawn to ethylene glycol phenyl ether+sodium di-sopropyl naphthalene sulfonate mixture, classified in class 562, subclass 30+.
- VII. Claim 86, drawn to a process of identifying and selecting chemicals (for sacrificial agents), classified in class 436, subclass 43+.
- VIII. Claim 87-94, drawn to a process of indentifying and selecting chemicals (for sacrificial agents), classified in class 702, subclass 22+.
- IX. Claims 104-106, drawn to a method of pre-treating fly ash using salicylic acid or its salts, classified in class 427, subclass 427.6.

The inventions are distinct, each from the other because of the following reasons:

Inventions I and II are related as process of making and product made. The inventions are distinct if either or both of the following can be shown: (1) that the process as claimed can be used to make another and materially different product or (2) that the product as claimed can be made by another and materially different process (MPEP § 806.05(f)). In the instant case, the ultimately molded cementitious mixture can be made by injection or casting. *Note: that should applicants select Group II, Group I can eventually be rejoined with Group II as rejoinder is proper between both these groups if the scope of both groups is the same upon finding of allowability.*

Inventions I and III, I and IV, I and V, I and VI, I and VII, I and VIII, I and IX; IV and VI, IV and VII, IV and VIII, IV and IX; VII and VIII, VII and IX, and VIII and IX and are directed to related *processes*. The related inventions are distinct if the inventions as claimed do not overlap in scope, i.e., are mutually exclusive; the inventions as claimed are not obvious variants; and the inventions as claimed are either not capable of use together or can have a materially different design, mode of operation, function, or effect. See MPEP 806.05(j). In the instant case, the different inventive processes have different designs, modes of operations, and effects are patentably distinct as shown by their mutually exclusive characteristics; the claimed processes also do not overlap in scope and are not obvious variants.

Inventions II and III, II and V, II and VI; III and V and III and VI, and V and VI are directed to related *products*. The related inventions are distinct if the (1) the inventions as claimed are either not capable of use together or can have a materially different

Art Unit: 1755

design, mode of operation, function, or effect; (2) the inventions do not overlap in scope, i.e., are mutually exclusive; and (3) the inventions as claimed are not obvious variants.

See MPEP § 806.05(j). In the instant case, the inventive products as claimed have different designs, modes of operations, and effects are patentably distinct as shown by their mutually exclusive characteristics. Furthermore, the inventions as claimed do not encompass overlapping subject matter and there is nothing of record to show them to be obvious variants.

Because these inventions are independent or distinct for the reasons given above and there would be a serious burden on the examiner if restriction is not required because the inventions have acquired a separate status in the art in view of their different classification and search, restriction for examination purposes as indicated is proper.

Applicant is advised that the reply to this requirement to be complete must include (i) an election of a species or invention to be examined even though the requirement be traversed (37 CFR 1.143) and (ii) identification of the claims encompassing the elected invention.

The election of an invention or species may be made with or without traverse. To reserve a right to petition, the election must be made with traverse. If the reply does not distinctly and specifically point out supposed errors in the restriction requirement, the election shall be treated as an election without traverse.

Should applicant traverse on the ground that the inventions or species are not patentably distinct, applicant should submit evidence or identify such evidence now of

Art Unit: 1755

record showing the inventions or species to be obvious variants or clearly admit on the record that this is the case. In either instance, if the examiner finds one of the inventions unpatentable over the prior art, the evidence or admission may be used in a rejection under 35 U.S.C.103(a) of the other invention.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Paul Marcantoni whose telephone number is 571-272-1373. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Paul Marcantoni  
Primary Examiner  
Art Unit 1755